

INVENTORY FORM FOR STATE HISTORIC SITES SURVEY

1 NAME

HISTORIC Curtis Creek Iron Furnace (archeological site)

AND/OR COMMON

2 LOCATIONSouth shore of Furnace Creek, a branch of Curtis Creek,
STREET & NUMBER aprox. 1 mile east of Ritchie Highway (Rt. 2) off the north
2 side of Furnace Branch Rd., west of Hammarlee dev.

CITY, TOWN Glen Burnie

CONGRESSIONAL DISTRICT

VICINITY OF

STATE

COUNTY

Anne Arundel

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE
<input type="checkbox"/> DISTRICT	<input type="checkbox"/> PUBLIC	<input type="checkbox"/> OCCUPIED	<input type="checkbox"/> AGRICULTURE <input type="checkbox"/> MUSEUM
<input type="checkbox"/> BUILDING(S)	<input type="checkbox"/> PRIVATE	<input type="checkbox"/> UNOCCUPIED	<input type="checkbox"/> COMMERCIAL <input type="checkbox"/> PARK
<input type="checkbox"/> STRUCTURE	<input type="checkbox"/> BOTH	<input type="checkbox"/> WORK IN PROGRESS	<input type="checkbox"/> EDUCATIONAL <input type="checkbox"/> PRIVATE RESIDENCE
<input type="checkbox"/> SITE	PUBLIC ACQUISITION	ACCESSIBLE	<input type="checkbox"/> ENTERTAINMENT <input type="checkbox"/> RELIGIOUS
<input type="checkbox"/> OBJECT	<input type="checkbox"/> IN PROCESS	<input type="checkbox"/> YES: RESTRICTED	<input type="checkbox"/> GOVERNMENT <input type="checkbox"/> SCIENTIFIC
	<input type="checkbox"/> BEING CONSIDERED	<input type="checkbox"/> YES: UNRESTRICTED	<input type="checkbox"/> INDUSTRIAL <input type="checkbox"/> TRANSPORTATION
		<input type="checkbox"/> NO	<input type="checkbox"/> MILITARY <input type="checkbox"/> OTHER:

4 OWNER OF PROPERTYNAME MD Dept. of Transportation . State Highway Administration
Telephone #:

STREET & NUMBER

CITY, TOWN

Baltimore

VICINITY OF

STATE, zip code

MD

5 LOCATION OF LEGAL DESCRIPTIONCOURTHOUSE,
REGISTRY OF DEEDS, ETC.

Anne Arundel County

Liber #:

Folio #:

STREET & NUMBER

CITY, TOWN

Annapolis

STATE

6 REPRESENTATION IN EXISTING SURVEYS

TITLE

DATE

☐ FEDERAL ☐ STATE ☐ COUNTY ☐ LOCALDEPOSITORY FOR
SURVEY RECORDS

CITY, TOWN

STATE

7 DESCRIPTION

AA-122

CONDITION

☐ EXCELLENT
☐ GOOD
☐ FAIR

☐ DETERIORATED
☐ RUINS
☐ UNEXPOSED

CHECK ONE

☐ UNALTERED
☐ ALTERED

CHECK ONE

☐ ORIGINAL SITE
☐ MOVED DATE _____

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

Information relating to this site was given to John Nydak, Nov. 1978 for the Historic Sites Survey he is preparing for the State Highway Administration. This site is also included in the Anne Arundel County Critical Areas Recommendations.

CONTINUE ON SEPARATE SHEET IF NECESSARY

8 SIGNIFICANCE

PERIOD		AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW			
<input type="checkbox"/> PREHISTORIC	<input type="checkbox"/> ARCHEOLOGY-PREHISTORIC	<input type="checkbox"/> COMMUNITY PLANNING	<input type="checkbox"/> LANDSCAPE ARCHITECTURE	<input type="checkbox"/> RELIGION	
<input type="checkbox"/> 1400-1499	<input type="checkbox"/> ARCHEOLOGY-HISTORIC	<input type="checkbox"/> CONSERVATION	<input type="checkbox"/> LAW	<input type="checkbox"/> SCIENCE	
<input type="checkbox"/> 1500-1599	<input type="checkbox"/> AGRICULTURE	<input type="checkbox"/> ECONOMICS	<input type="checkbox"/> LITERATURE	<input type="checkbox"/> SCULPTURE	
<input type="checkbox"/> 1600-1699	<input type="checkbox"/> ARCHITECTURE	<input type="checkbox"/> EDUCATION	<input type="checkbox"/> MILITARY	<input type="checkbox"/> SOCIAL/HUMANITARIAN	
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> ART	<input type="checkbox"/> ENGINEERING	<input type="checkbox"/> MUSIC	<input type="checkbox"/> THEATER	
<input type="checkbox"/> 1800-1899	<input type="checkbox"/> COMMERCE	<input type="checkbox"/> EXPLORATION/SETTLEMENT	<input type="checkbox"/> PHILOSOPHY	<input type="checkbox"/> TRANSPORTATION	
<input type="checkbox"/> 1900-	<input type="checkbox"/> COMMUNICATIONS	<input type="checkbox"/> INDUSTRY	<input type="checkbox"/> POLITICS/GOVERNMENT	<input type="checkbox"/> OTHER (SPECIFY)	
		<input type="checkbox"/> INVENTION			

 SPECIFIC DATES

 BUILDER/ARCHITECT

 STATEMENT OF SIGNIFICANCE

CONTINUE ON SEPARATE SHEET IF NECESSARY

9 MAJOR BIBLIOGRAPHICAL REFERENCES

CONTINUE ON SEPARATE SHEET IF NECESSARY

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY _____

VERBAL BOUNDARY DESCRIPTION

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE

COUNTY

STATE

COUNTY

11 FORM PREPARED BY

NAME / TITLE

ORGANIZATION

DATE

STREET & NUMBER

TELEPHONE

CITY OR TOWN

STATE

The Maryland Historic Sites Inventory was officially created by an Act of the Maryland Legislature, to be found in the Annotated Code of Maryland, Article 41, Section 181 KA, 1974 Supplement.

The Survey and Inventory are being prepared for information and record purposes only and do not constitute any infringement of individual property rights.

RETURN TO: Maryland Historical Trust
The Shaw House, 21 State Circle
Annapolis, Maryland 21401
(301) 267-1438

Site: The ruins of the Curtis Creek Iron Furnace are located on the South Shore of Furnace Creek, a branch of Curtis Creek, approximately $\frac{1}{2}$ mile east of the Ritchie Highway off the North side of Furnace Branch Road and West of the development known as Hammarlee.

The reins are located on a bank above the water. There are some foundation stones still in place with other stones and brick fragments scattered about the area. There is a great deal of slag throughout the area. A clean-up and some digging at the site in 1968 exposed several pieces of iron ware including two ladle pots 15" high and 12" diameter. The Star-Spangled Banner Flag House in Baltimore contains an iron cannon ball found on the site. In the late 1960's when a sewer line was being run through the site, 12" x 12" oak timbers that must have been used for a wharf were excavated.

This site even though it is very close to a lot of buildings and houses is very isolated in feeling because of the high banks and trees.

History: The Curtis Creek Furnace, also known as the Marley Furnace, was built about 1759 by Caleb and Edward Dorsey, (of Avalon) and Alexander Lawson who in 1758 applied for a writ Ad Quod Damnum (to what damage - to ascertain what damage would result from the grant of a franchise) for 100 acres for a furnace to run pig iron on a branch called Long Bridge Branch near the head of Curtis Creek. The Writ was granted on April 12, 1759. The furnace was built by Edward Dorsey and William Goodwin, and Caleb Dorsey later purchased Alexander Lawson's interest in the venture. Lawson and the Dorseys had previously founded the Elkridge Furnace on the Patapsco In 1755.

For several years the Curtis Creek works were operated in conjunction with the Dorsey Establishment at Elk Ridge. After Caleb Dorsey's death in 1772 The Curtis Creek holdings were sold.

On April 23, 1773, Samuel Dorsey, Jr., Charles Ridgely, Michael Poe, William Goodwin, and William Buchanan, the co-partners of the Northhampton Furnace (Baltimore County), in the adjustment of their affairs, sold the works to a Mr. William Barker, who operated them as the Curtis Creek Iron Works. As late as 1840 they were being operated by J. Barker and Son. William Barker and Son also operated an iron foundry in Baltimore. Barker smelted some local iron ore but using water transportation to good advantage brought in additional ore from Whetstone and Gorsuch Points in Baltimore.

Barker erected a foundry at Curtis Creek in 1829 and this and their foundry in Baltimore converted into castings two-thirds of the average output of 1100 tons of pig iron for a nine-month blast. By 1851 they had a capacity of approximately 2,000 tons annually. The high-grade charcoal pig iron produced was known for its toughness and tenacity.

By 1840 the Furnace employed 150 men and 30 horses and mules. The plant was last operated by William Wilkins Glenn, who, together with John Glenn, Jr. and Robert Lemmon, also owned the Patuxent Furnace near Laurel. The Curtis Creek Furnace ceased operations in 1851.

The property containing the furnace was purchased about 1920 by John H. Geis of Anne Arundel County and titled in the name of the Hammarlee Realty Co. At that time about 1/3 of the furnace ruins were still visible.

In the late 1960's a tract containing the furnace ruins was purchased by the State Roads Commission for the Arundel Expressway.

The Furnace - The furnace was 30 feet high and 9½ feet wide at the boshes (the actual furnace inside). The blast which was 900 cubic feet per minute and blown through one tuyere pipe (air blast pipe) was driven by the water of the creek which also turned three other wheels connected with the establishment. The dam was one mile to the Southwest, and the old race could still be traced (in 1911) from the mill pond across Light Street (Crain Highway) to the furnace.

A photograph taken about 1900 and published in 1911 shows the furnace constructed of stone and brick with iron bands around the upper stack. This photograph is clear enough and with enough details to permit a fairly accurate restoration to be made.

The Martinet Map of Anne Arundel County published in 1860 shows the site listed as Parker's old furnace and shows 5 structures represented by blocks in² rows parallel to the water.

The Hopkins Atlas of 1878 - 5th District shows the property listed to John Glenn and Co. and shows 3 structures parallel to the water. The site of the furnace was marked on an old map of the Fort McHenry area which was in the possession of the fort several years ago.

Old records state that 4 water wheels were used at Curtis Creek. The locations of three of these wheels has been discovered.

Metal shavings found imbedded in the bottom of a pot uncovered in 1968 are believed to be from a lathe which would indicate that the foundry operation included a machine shop. One of the wooden buildings at the furnace is believed to have been more than 100 feet long. Some of the foundations for this building were uncovered in November, 1966.

It was believed that the furnace covered a 3-acre area, but the discovery in 1968 of the two ladle pots over 300 feet away from the furnace in an area not previously considered part of the site could indicate an even larger operation.

Iron bands used to hold the super heating structure together atop the furnace were found during the March, 1968, excavation project. These iron bands can be seen in the 1960 photograph.

Restoration and Site-use Potential - The land around the iron furnace ruins is now owned by the State Highway Commission and is not being used for the Arundel Expressway. This area is very close to developed areas but still maintains a feeling of natural beauty due to the water, the lack of structures on the North shore, the trees which block out the landfill and the buildings in Hammarlee, and by the high banks which hide the low brick pumping station. The Gas and Electric Company's Electric Transmission lines provide a clear buffer zone to the South.

It appears that this area of several acres could be developed into a park for the North County. There is a bridge and an access road from Hammarlee into the sewer pumping building, or access could be made from behind the factories off Furnace Branch Road.

The land along the Creek Bank is level with trees and an open trail which could be used for picnic tables. If future use of the landfill across the creek could be screened by the existing trees, the rural feeling along the water could be preserved.

The furnace ruins could be the key attraction of the park. The space directly around the furnace should be fenced while an archeological dig is undertaken. The furnace could be then rebuilt based on the evidence found. It is possible that financial support for this project could be obtained from the various iron and steel related industries in the Baltimore area.

This is one of the few remaining iron furnace sites in Maryland and because of its location in the heavily populated center of Maryland could be developed as a major tourist attraction and serve as an educational tool for the Maryland School system.

Except for a few summer cabins built in the early 1900's, there have never been any buildings on this site other than the iron furnace.

and buildings connected with it. An archeological excavation of the area should turn up a great deal of valuable material and information about this early iron industry. An archeological study should be undertaken even if restoration of the furnace is not planned because this will be the last opportunity to ever do this. One bulldozer could in one hour destroy forever what is left of the furnace.

The National Park Service has restored the Hopewell Iron Furnace in Berks County, Pennsylvania. This furnace was not started until 1770 about ten years after Curtis Creek, and it turned out only 700 tons of pig iron a year. The shape of this furnace is somewhat similar to the Curtis Creek Furnace. It is 22' at the base and 32' high.

The Pennsylvania Historical and Museum Commission has restored the iron furnace at Cornwall, Pennsylvania. This furnace was originally built in 1742 but was remodeled in 1857 when it was enlarged from 20 to 28 feet square at the base and from 11 to 21 feet square at the top. The waterwheel was removed and replaced with a steam engine. This furnace is restored to its appearance when production stopped in 1883.

Both of these sites are open to the public and prove that there is public interest in visiting this type of restoration.

This Report was compiled from information found in the following sources:

1. Report on the iron ores of Md. - Joseph Singewald, Jr., John Hopkins President 1911
2. Letter from Mr. Robert Lee Geis to Mrs. Robert Agee - Oct. 22, 1975
3. Hopkins Atlas of 1878 - Reprint 1969
4. Martinet Map of A.A. Co. 1860
5. Maryland Gazette, March 28, 1968 Pg. 21
6. Evening Sun, Fri.. March 29, 1968
7. Colonials and Patriots, National Park Service 1964, Pgs. 66-68
8. The Living Past of America - Cornelius Vanderbilt, Jr., Pg. 74
9. 2. Cornwall Furnace Folders by the Pennsylvania Historical and Museum Commission
10. Colonial Craftsmen - Edwin Tunis - Pgs. 147-154
(Contains detailed information about the early iron-making process)
11. On Site Inspection 1968 - Photo Taken of ruins
On Site Inspection with Mr. Robert L. Geis, Jan. 17, 1976

Larry R. Paul
Feb. 10, 1976

AA-122

FURNACE CREEK

CONCRETE
PIERCE RUINS

HOTTER
ROCKS

FLAT LEVEL AREA

ROCKS + BRICKS
SCATTERED DOWN BANK

HIGH BANK

FURNACE
RUINS

TREES

OPEN FIELD

O+E ELECTRIC LINES ON TOWERS

BRICK
SEWER
PUMPS
BLOS

APARTMENT
BLOS

Hammock

HIGH BANK

STREAM

ACCESS
ROAD

FACTORIES

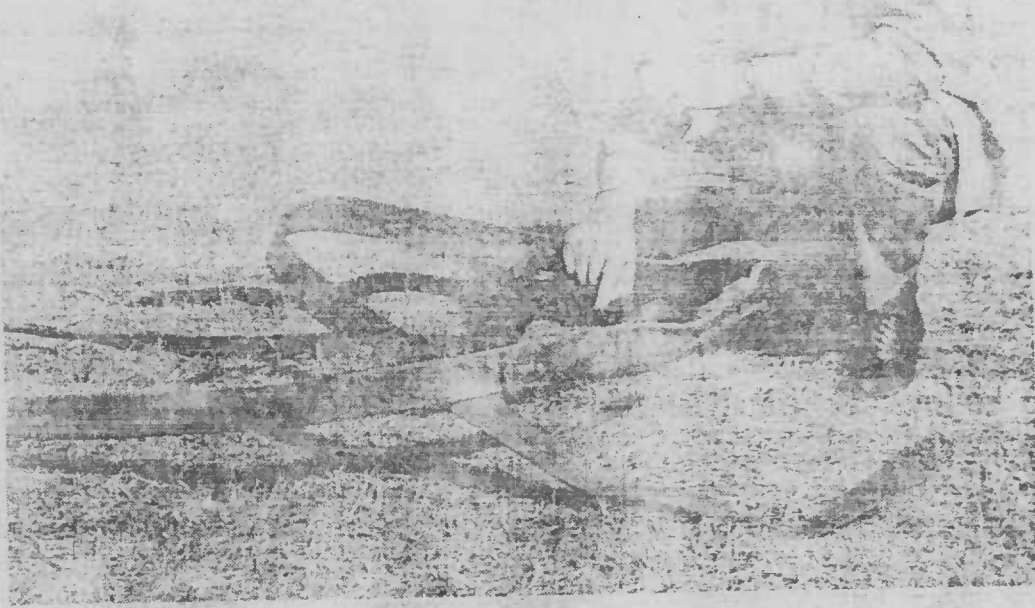
NEW EXPRESSWAY

FURNACE BRANCH ROAD

APPROX LOCATION OF
IRON FURNACE RUINS

NOT TO SCALE.

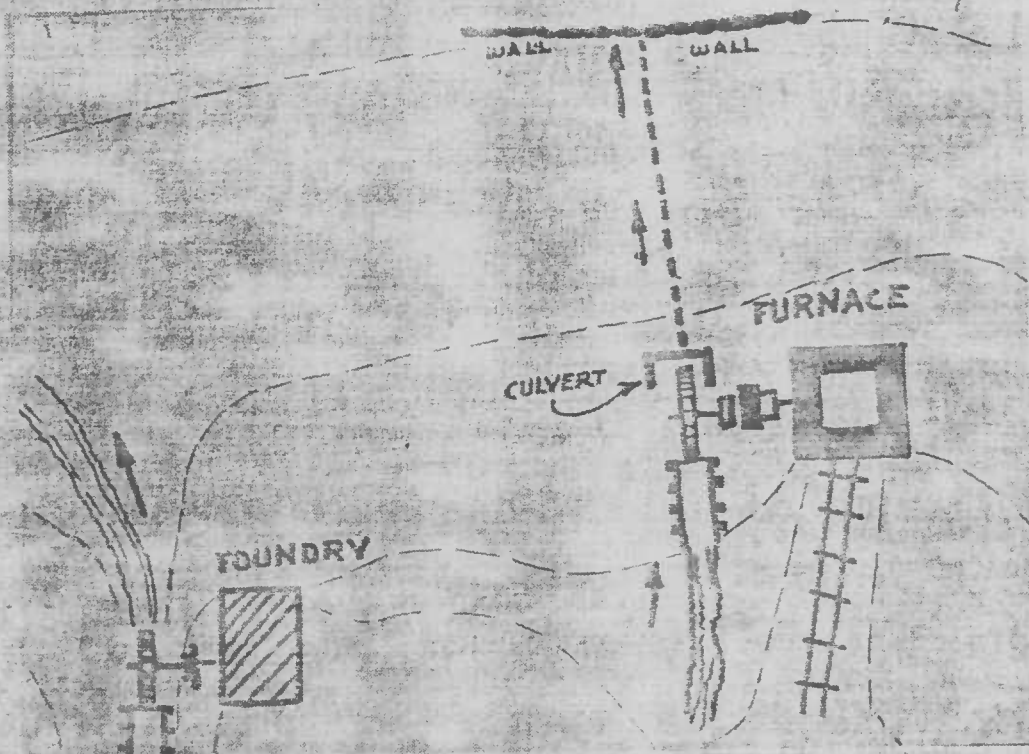
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FIRST ARTIFACTS — Iron bands used to hold the superheating structure together atop the Curtis Creek furnace, are displayed by the Rev. John A. Grant, project director. According to Rev. Grant, they are the first

tangible evidence of the iron ore operation. They were dug up by Boy Scouts who were assisting with the excavation and clearing process.

Photos By Peter W. Shookner



FURNACE COMPLEX SCHEMATIC — The probable location of the water ways, foundry and furnace have been approximated by the Historical Society who have based this

throughout Maryland and Pennsylvania. The foundry and furnace sites have been determined and when the area is cleared of underbrush, further excavation and digging will commence to pinpoint various buildings.

Detention

An agent of the Bureau of Investigation, appointed superior County Detention was announced y

Paul D. Earn retire soon after service with the

Prowler Escapes From School

Two county elementary schools were tampered with Monday morning, police stated.

A county police officer reported someone who entered and entered Elementary School about 6 a.m. According to L. Neisser, he saw a window broken and a suspect fled through the door when he saw the building. Nothing was missing.

Officer Joseph reported a break in the Jacobsville Elementary School about 6 a.m. pry marks on the north side

Sgt. Hoffman Outstanding Airman

Sergeant Stephen Hoffman, son of Mr. and Mrs. W. Hoffman, Jr., has received the Force Commendation Pease AFB, N

Sergeant Hoffman's instruction equipment was decorated for service at Pease. He was cited for professional service.

He is now a unit of the State Guard.

The sergeant is from Glen Burnie.

Dist. & Co. Lines made in distance by straight
County Roads.....
Private ".....
Turnpike.....
Rail Roads.....
Streams.....
The figures along the Roads
shows the distance in Roads
from junction to junction thereof

but sometime before 1822, its present, more "cylinders" took over. These sit above the water wheel. They are coopered with metal hoops. Cranks on the sides raise and lower pistons in a system of flap valves that makes air at one end while it exhales at the other. The two give the effect of four cylinders. An equalizing chest stands between them. Air under a pressure of about a pound per square inch is forced to the tuyère through a large

nozzle about four feet long, the blast. Ironworkers come to the "tooyer," or, like the blacksmith, it pierces the wall under the dam or so above the level of the hearth and its blast is directed at the burning charcoal in the

run from the ore, it ran down the dam called the hearth, part of which was beyond a curtain wall (the dam) under the casting arch, the metal was held back by the dam. The dam, stopped by an easily raised gate, allowed the furnace to be emptied in twenty-four hours. A hole, the "cinder hole," in the dam, the rehearth and at one side (not the dam), was opened every hour to let the slag that accumulated on the dam in the hearth.

The product of an iron furnace was ready for remelting and casting

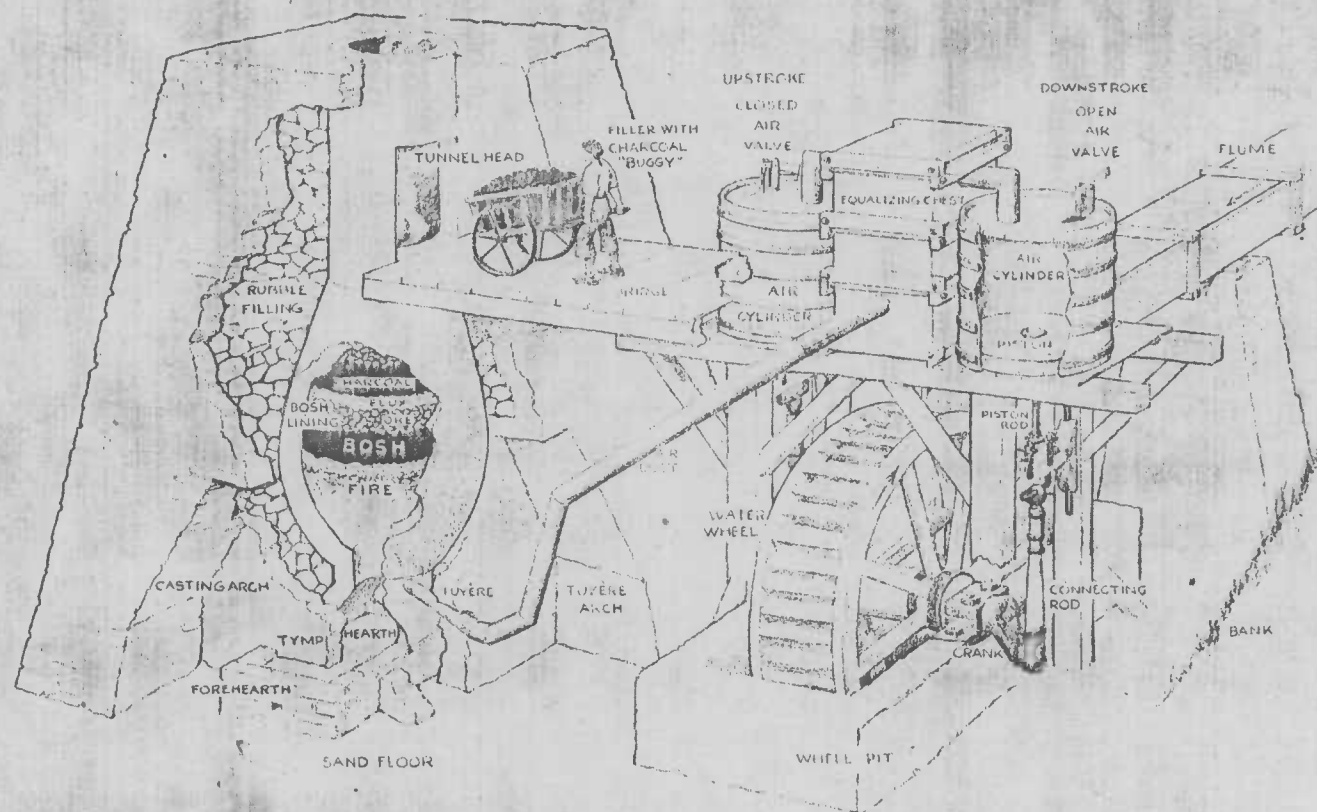


Diagram of a late 18th-century iron furnace similar to Hopewell

the branches, and lay in them bubbling. When all were full, the crucible was empty and the hole in the dam was replugged to accumulate another run.

The founders broke the pigs off the sows with hammers when the metal cooled, and broke up the iron in the other trenches into portable pieces. The thick piece from the main trench was the sow. It weighed upward of two hundred pounds; a pig weighed sixty or seventy. The whole run was weighed on a steel-yard scale and

carved wooden pattern into the sand floor. Augustine Washington cast tombstone-shaped firebacks at Accokeek from patterns dated 1728—the date of a pattern is, of course, no guarantee of the date of the casting.

Hopewell cast firebacks, too, but by the time it started smelting, people had begun to heat their houses with stoves made of flat iron plates bolted together. The plates could be cast as simply as firebacks, and Hopewell made hundreds of them. An elaborate one survives